



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

JANUARY – APRIL 2014 TRIMESTER

FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING AND FINANCE

ORDINARY DIPLOMA PROGRAMME

CID 084: COMPUTER PROGRAMMING

Date: APRIL 2014

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and ANY OTHER TWO Questions

- Q1. a) Explain what is a computer and how a computer works. **(6 marks)**
- b) State and explain the different languages used in computer programming. **(6 marks)**
- c) Programs regardless of the languages they are written in contain two fundamental parts. Clearly state and explain these fundamental parts. **(4 marks)**
- d) Discuss the importance of computer programming. **(4 marks)**
- e) Write a java code to output the following:
- i) Programming in Java is simple!
 - ii) "java" **(4 marks)**
- f) Explain the meaning of the following terms as used in computer programming.
- i) Variables
 - ii) Classes

iii) Objects (6 marks)

Q2. a) Distinguish between instance variables and global variables as used in computer programming. (4 marks)

b) Explain the following:

```
Public class client class person {  
Public static void main (string[ ] args) {  
P1. Set residence ("Nairobi");  
System.out.println (p1.get Residence ( ));  
}  
}
```

(4 marks)

c) State and explain any **TWO** roles that computer programming plays. (4 marks)

d) Explain how the following symbols are used in Java programming:

i) //
ii) /*

(4 marks)

e) Explain how repetition can be achieved in programming. (2 marks)

f) What are conditional statements? (2 marks)

Q3. a) Explain the meaning of the following terms as used in computer programming.

i) Writing program
ii) Compiling program
iii) Executing program

(6 marks)

b) State and explain any **FOUR** characteristics of java. (4 marks)

c) What is logical error? (3 marks)

d) Explain how a for loop differ from a while loop. (3 marks)

e) How is objects abstraction realized in computer programming? (4 marks)

- Q4. a) How do semantic errors occur in the written code? **(3 marks)**
- b) Explain your understanding of syntax error. Give at least **TWO** examples of syntax errors. **(4 marks)**
- c) What is the distinction in terms of display output between the following two lines of code:
- i) `System.out.println`
 - ii) `System.out.print` **(4 marks)**
- d) What is the output of the following code:
- ```
public class main {
public static void main (string args []) {
string str = "Java works!";
system.out.println (remove char Art (str, 3))
}
public static string remove Char At (string 5, int pos) {
return S substring (0, pos) + s.substring (POS + 1);
}
}
```
- (6 marks)**
- e) What is displayed when this code is executed?
- ```
For(int = 1; I <= 10; I ++ )
System.out.println (i * i);
```
- (3 marks)**

END